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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,199	12/29/2000	Dean Throop	40921/250098	8124

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EXAMINER	
SCHNEIDER, JOSHUA D	

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/752,199	THROOP, DEAN	
	Examiner	Art Unit	
	Joshua D. Schneider	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-17 and 19-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-17 and 19-27* is/are rejected.

7)☒ Claim(s) *10-12 and 21-25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/9/2005 has been entered.

Response to Arguments

2. Applicant's arguments filed 11/9/2005 have been fully considered but they are not persuasive.

3. With regards to the rejection under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language claims structuring the workstation request "in a manner substantially the same" as a host request. It is unclear what falls within and what would fall outside the scope of this limitation. It is understood that in most network systems there is no difference between a request between a workstation, or client, and a host, or server. In fact, we often define a particular computer as both a server and a workstation based on whether at the time it is requesting or sending transmission to another network device (see Newton's Telecom Dictionary, server definition). As such it is unexplained, what differences, if any exist in this case. There is nothing found in the specification by the examiner that would explain what differences exist so that the request is sent in a manner that is "substantially the same" but not actually be the same.

4. Applicant has also argued that there is no teaching in U.S. Patent 6,470,382 to Wang et al. of providing a direct connection from a workstation to a target device, without interrupting a host system (server). While applicant has correctly pointed out that the workstations (Clients 306A-B) are coupled to the node in Fig. 3C, the workstations are also coupled directly to the target devices in Figs. 3A and 3B. Further, the term direct connection in the specification makes clear that the connection is "direct" in that it does not necessitate the use of the host or server. This is not necessary in any of the embodiments. The node devices in Fig. 3C act as a pass through to the communications that are sent through them and would not normally effect the communications. Wang also teaches that the workstations may establish direct connections with target netSCSI devices (Fig. 4A, column 8, line 58, through column 11, line 6) in the same way as direct SCSI requests from a host system (Fig. 4B, column 11, line 7, through column 13, line 9). The arguments that the connections are not direct seem to apply only to one of the embodiments shown in the reference, and ignore the other to embodiments shown as Figs. 3A and 3B. Applicant also argues that the connection is established over the network and is therefore not direct. It is unclear at this time how a network connection cannot be over a network. For these reasons, the arguments are not persuasive. However, in light of the amendments, and new rejections are set forth below.

Claim Objections

5. Claims 1, 10-12, and 21-25 are objected to because of the following informalities: These claims do not depend on an existing claim, as the claims from which they claim dependency have been cancelled by the previous amendment. Claim 1 is also objected to for including the word "sewer" where the word server should exist. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1 and 13, and dependent claims 2-6, 8-12, 14-17, 19-25, and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. With regards to claim 1 and 13, the specification does not teach a SCSI cable connection between the workstation and the target device though it is also unclear whether the connection between the workstation and the server in claim 1 is intended to be with a SCSI cable.

8. Dependent claims 2-6, 8-12, 14-17, 19-25, and 27 are rejected for incorporating the same subject matter as the independent claims form which they depend. The claims will be interpreted as having a network connection between the workstation and the server.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 2, 4, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. With regards to claims 2 and 14, Applicant claims structuring the field of the SCSI request in a manner substantially the same as a direct SCSI request. It is unclear to what the

limitation substantially refers. It is unclear what falls within and what would fall outside the scope of this limitation.

12. With regards to claim 4, Applicant claims structuring the field of the SCSI request in a manner substantially different than a direct SCSI request. It is unclear to what the limitation substantially refers. It is unclear what falls within and what would fall outside the scope of this limitation.

13. The claims will be interpreted as acting within the bounds of the TCP/IP protocol.

14. All further rejections and objections are made in view of the specification as best understood in light of the previous objections and rejections.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 1-6, 8-17, and 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,836,830 to Yamagami et al. in further view of the definitions servers from Newton's Telecom Dictionary and TCP/IP.

17. With regards to claims 1 and 13, Yamagami teaches establishing network connections through a SCSI cable between a server (host 2b) and a target device (backup device 3) and between a server (host 2b) and a workstation (host 2a), (Fig. 1, elements 2a, 2b, 3, 12, and 17, column 4, lines 28-33) establishing a direct IP connection between a workstation making up part of a computer system and a target device on a network (Fig. 1, elements 2a, 3, and 17, column 4,

lines 20-27 and 42-47); encoding a SCSI request with a tag identifying the request as a SCSI request (inherent to accessing a SCSI device), and structuring the request with a request IP/ID (column 4, lines 20-27, inherent to the use of TCP/IP); sending the tagged SCSI request to the target device (column 4, lines 20-27); returning the request IP/ID of the SCSI request from the target device to the computer system (column 4, lines 20-27). Yamagami does not explicitly teach the use of the host being called a workstation. However, as evidenced by Newton's Telecom Dictionary, a terms server and client are simply labels that define the role that software performs for a particular transaction. It would have been obvious to one of ordinary skill in the art at the time of invention to use the by host 2a accessing backup storage target device 3 over a TCP/IP network connection, host 2a is acting as a client workstation that is requesting service over the network connection without the use of a server.

18. With regards to claims 2 and 14, Yamagami teaches structuring and encoding the field of the SCSI request which is direct from the workstation (Fig. 1, column 4, lines 20-27) in a manner substantially the same as a direct SCSI request from a host system making up part of the computer system to a target device (Fig. 1, column 4, lines 20-27, inherent to the use of a protocol defined network). Yamagami also inherently teaches the structuring and encoding being done using CTLD wherein the SCSI request is prefixed with a CTLD header that defines the request type and length, as this information is part of the defined packet headers required by TCP/IP.

19. With regards to claims 6, 8, 17, and 19, Yamagami teaches the target device is a storage system (column 4, lines 28-33).

20. With regards to claims 9, 20, and 23, Yamagami teaches a server connected to the storage system through SCSI cable, a workstation connected to the server, and further comprising the workstation directly connected to the storage system for establishing the IP connection with the storage system (Fig. 1, column 4, lines 20-27). Yamagami teaches server client relationship establishment (Fig. 1, column 4, lines 20-27). This relationship is also inherent to the connection establishment under the TCP portion of the TCP/IP protocol.

21. With regards to claims 10, 21, and 25, Yamagami does not explicitly teach denying a connection from the workstation to the target device if a request from the workstation does not include a recognized IP/ID, but such a denial is inherent to TCP/IP, and thus this limitation must be inherently taught.

22. With regards to claims 11 and 24, Yamagami does not explicitly teach denying a connection from the computer system to the target device if the time for reading a completed message exceeds a predetermined amount of time, but such a denial is inherent to TCP/IP, and thus this limitation must be inherently taught.

23. With regards to claim 12, Yamagami teaches a direct connection is established on a network separate from a SCSI cable connection between the host system and the target device (Fig. 1, elements 2b, 3, and 12, column 4, lines 28-33).

24. With regards to claims 3 and 15, Yamagami teaches sending SCSI request over an Ethernet connection using the TCP/IP protocol, but does not explicitly teach and the encoding including a data buffer containing data to allow the target device to read the data buffer using the established TCP/IP connection. However, it was notoriously well known in the art at the time of invention that receive and transmit buffers were used in popular commercially available Ethernet

chips used to implement the LAN and IP environments taught by Yamagami. It would have been obvious to one of ordinary skill in the art to use transmit and receive Ethernet buffering to facilitate SCSI transfers over a TCP/IP protocol.

25. With regards to claim 4, Yamagami teaches sending SCSI request over an Ethernet connection using the TCP/IP protocol, but does not explicitly teach sending the data in conjunction with the SCSI request in a manner substantially different from direct SCSI requests from a host system to a target device, and which allows the host system to supply the data buffer without an explicit request from the target system, whereby the target system is allowed to receive the data immediately following the request without having to make an explicit request to obtain the data buffer. However, it was notoriously well known in the art at the time of invention, that receive and transmit buffers were used in popular commercially available Ethernet chips. It would have been obvious to one of ordinary skill in the art to use transmit and receive Ethernet buffering to facilitate SCSI transfers over a TCP/IP protocol.

26. With regards to claims 5 and 16, Yamagami does not explicitly teach sending SCSI request over an Ethernet connection using the TCP/IP protocol and returning a data buffer generated by the target device to the workstation using the established TCP/IP connection. However, it was notoriously well known in the art at the time of invention, that receive and transmit buffers were used in popular commercially available Ethernet chips. It would have been obvious to one of ordinary skill in the art to use transmit and receive Ethernet buffering to facilitate SCSI transfers over a TCP/IP protocol.

27. With regards to claims 26 and 27, Yamagami inherently teaches a computer system comprises a host and a workstation connected directly thereto, each containing software for

cooperation with each other and further comprising operating said software to construct SCSI requests to send over a direct TCP/IP connection between the workstation and target device (Fig. 1, column 4, lines 20-27), as the systems work together at least in the recognition and handling of broadcast data.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDS

TAMMARA PEYTON
PRIMARY EXAMINER